

### **REMARKS**

This responds to the Office Action dated February 5, 2008.

Claims 50, 57, 73, 81 are amended, claims 1, 2, 5, 30, 39, 40, 42, 44, 87, 88, 90, and 91 are canceled, and claims 95-97 are added; as a result, claims 50, 56-59, 72, 73, 81-83, 92-97 are now pending in this application.

#### **Restriction Requirement**

In the Restriction Requirement provided orally to Applicants' attorney on January 9, 2008, the Examiner restricted the claims to one of the following inventions under 35 U.S.C. 121:

- I. Claims 1, 2, 5, 30, 39, 40, 42, 54, 87, 88, 90, and 91, drawn to a system that includes an interface device and a hand held device that receive and process auxiliary data from a modulated signal, classified in class 348, subclass 725.
- II. Claims 50, 56, 57, 58, 59, 72, 73, 81, 82, 83, 92, 93, and 94, drawn to a method of modulating a video signal with auxiliary data, classified in class 348, subclass 473.

Applicants elect, without traverse, Group II, claims 50, 56, 57, 58, 59, 72, 73, 81, 82, 83, 92, 93, and 94. Applicants respectfully cancel claims 1, 2, 5, 30, 39, 40, 42, 54, 87, 88, 90, and 91 (Group I) without prejudice or disclaimer, and reserves the right to reintroduce them in one or more Divisional applications at a later date.

#### **§102 Rejection of the Claims**

Claims 50, 56, 92 and 94 were rejected under 35 U.S.C. § 102(b) for anticipation by Broughton et al. (U.S. Patent No. 4,807,031).

To anticipate a claim, the reference must teach every element of the claim<sup>1</sup>. Applicant respectfully submits that the Office Action did not make out a *prima facie* case of anticipation for at least the following reasons<sup>2</sup>.

With respect to claim 56, Applicants submit that the Office Action did not make out a *prima facie* case of anticipation as Broughton does not teach each and every claim element. Applicants fail to find in Broughton any disclosure of “determining whether auxiliary data is present in the frame by performing a field comparison on a plurality of segments of a first field and a plurality of corresponding segments of a second field for the frame.”

Broughton relates to a method and apparatus for in-band, video broadcasting of commands to interactive devices. See Abstract. A video signal is modulated “at frequencies that are related to multiples and submultiples of the horizontal line rate, to produce a subtle video subcarrier.” See Col 2 lines 63-65. The video signal is received and analyzed by receiver/transmitter electronics. See Col 7 lines 57-60 and FIG. 3. The electronics “analyze[s] the [] signal for energy within a range around 7.867 kHz, ..., the frequency at which luminance is modulated in the viewing area 14c of the television screen.” See Col 7 line 67 – Col 8 line 4. “In the presence of luminance modulation within this range of frequencies, the output of receiver electronics 56 represents a binary 1 or 0, indicating the presence and sense of control data intended for ancillary use ...” See Col 8 lines 4-9.

In summary, Broughton does not determine whether auxiliary data is present in the frame by performing a field comparison on a plurality of segments of a first field and a plurality of corresponding segments of a second field for the frame. Rather, Broughton uses frequency detection to determine encoding.

Claim 50 as amended, recites, in part, “altering the pixel value of the plurality of pixels of at least one first portion segment of the plurality of segments of the first portion; altering the

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<sup>1</sup> “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim*.” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

<sup>2</sup> “[T]he exclusion of a claimed element from a prior art reference is enough to negate anticipation by that reference.” *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771-72, 218 USPQ 781, 789 (Fed. Cir. 1983). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131.

pixel value of the plurality of pixels of at least one second portion segment of the plurality of segments of the second portion based on the altering of the pixel value of the plurality of pixels of the at least one first portion segment of the first portion, the at least one second portion segment not including the at least one first portion segment". See page 17 lines 8-15 and page 34 lines 5-21. Applicants do not find these elements in Broughton.

Broughton discloses that "[h]igher data rates also may be achieved by the division of the viewing area 14c unto multiple regions, each of which is subliminally modulated to encode one or more binary bits of data." See Col 7 lines 50-54. The divided viewing area is detected by the use of multiple transducers. See Col 7 lines 50-57. The data is detected and decoded in parallel. See *Id.*

Broughton therefore discloses independent encoding in the multiple regions of the viewing area. There is no disclosure in Broughton that the altering of the pixel value of the plurality of pixels of at least one second portion segment of the plurality of segments of the second portion based on the altering of the pixel value of the plurality of pixels of the at least one first portion segment of the first portion, the at least one second portion segment not including the at least one first portion segment as claimed.

Therefore, at least for these preceding reasons, claims 50 and 56 are allowable over Broughton. As Broughton does not teach all of the features of independent claims 50 and 56, Applicants requests allowance of these claims and their respective dependent claims 92 and 94.

### §103 Rejection of the Claims

Claims 57-59, 72, 73, 81-83 and 93 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Broughton et al. (U.S. Patent No. 4,807,031).

Applicants submit that a dependent claim incorporates each of the claim elements of the independent claim it properly depends from. Applicants assert that Broughton does not teach or suggest<sup>3</sup> all of the claim elements of claims 57-59, 72, 73, 81-83 and 93 and the combination with the Examiner's knowledge does not cure the defect. Therefore, Applicants respectfully request withdrawal of the § 103(a) rejection and allowance of claims 57-59, 72, 73, 81-83 and 93.

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<sup>3</sup> The references when combined must teach or suggest all the claim elements. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Moreover, the Examiner does not cite references to support all the elements of the claims as discussed above. Applicants therefore assume that the Examiner is taking official notice of the missing elements. Applicants respectfully object to the taking of official notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, Applicants respectfully traverse the assertion of Official Notice. For at least these reasons, Applicants respectfully submits that claims 57-59, 72, 73, 81-83 and 93 are patentable over the disclosure and teaching of Broughton. Reconsideration and withdrawal of this rejection is requested.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicants reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicants timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicants reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicants respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 636-681-1324 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 7 day of July 2008.

Name

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